

Pim-2 (E-17): sc-26403

BACKGROUND

The Pim-2 gene product (provirus integration site for Moloney murine leukemia virus), is a serine/threonine kinase that is capable of autophosphorylation. Human transcripts for Pim-2 have been detected in hematopoietic lineages as well as leukemic and lymphoid cells (K-562, HL-60, RAJI, SW480, testis, small intestine and colon). Additionally, Pim-2 kinase is found at moderate levels and is distributed evenly throughout the brain. Pim-2 kinase is implicated in tumor phenotypes and may be involved in the formation and preservation of Long-Term Potentiation (LTP), a profuse, activity-dependent enhancement of synaptic efficacy that is implicated in long-term memory.

REFERENCES

1. Van der Lugt, N.M., Domen, J., Verhoeven, E., Linders, K., van der Gulden, H., Allen, J. and Berns, A. 1995. Proviral tagging in E μ -Myc transgenic mice lacking the Pim-1 proto-oncogene leads to compensatory activation of Pim-2. *EMBO J.* 14: 2536-2544.
2. Allen, J.D., Verhoeven, E., Domen, J., van der Valk, M. and Berns, A. 1997. Pim-2 transgene induces lymphoid tumors, exhibiting potent synergy with c-Myc. *Oncogene* 15: 1133-1141.
3. Baytel, D., Shalom, S., Madgar, I., Weissenberg, R. and Don, J. 1998. The human Pim-2 proto-oncogene and its testicular expression. *Biochim. Biophys. Acta* 1442: 274-285.
4. Konietzko, U., Kauselmann, G., Scafidi, J., Staubli, U., Mikkers, H., Berns, A., Schweizer, M., Waltereit, R. and Kuhl, D. 1999. Pim kinase expression is induced by LTP stimulation and required for the consolidation of enduring LTP. *EMBO J.* 18: 3359-3369.
5. Eichmann, A., Yuan, L., Breant, C., Alitalo, K. and Koskinen, P.J. 2000. Developmental expression of Pim kinases suggests functions also outside of the hematopoietic system. *Oncogene* 19: 1215-1224.
6. Hammerman, P.S., Fox, C.J., Cinalli, R.M., Xu, A., Wagner, J.D., Lindsten, T. and Thompson, C.B. 2004. Lymphocyte transformation by Pim-2 is dependent on nuclear factor- κ B activation. *Cancer Res.* 64: 8341-8348.

CHROMOSOMAL LOCATION

Genetic locus: PIM2 (human) mapping to Xp11.23; Pim2 (mouse) mapping to X A1.1.

SOURCE

Pim-2 (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Pim-2 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-26403 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Pim-2 (E-17) is recommended for detection of Pim-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Pim-2 (E-17) is also recommended for detection of Pim-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Pim-2 siRNA (h): sc-39145, Pim-2 siRNA (m): sc-36227, Pim-2 shRNA Plasmid (h): sc-39145-SH, Pim-2 shRNA Plasmid (m): sc-36227-SH, Pim-2 shRNA (h) Lentiviral Particles: sc-39145-V and Pim-2 shRNA (m) Lentiviral Particles: sc-36227-V.

Molecular Weight of Pim-2 human short isoform: 34 kDa.

Molecular Weight of Pim-2 mouse short isoform: 34 kDa.

Molecular Weight of Pim-2 mouse medium isoform: 38 kDa.

Molecular Weight of Pim-2 mouse long isoform: 40 kDa.

Positive Controls: CTLL-2 cell lysate: sc-2242.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Pim-2 (1D12): sc-13514** or **Pim-2 (F-4): sc-271893**, our highly recommended monoclonal alternatives to Pim-2 (E-17). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Pim-2 (1D12): sc-13514**.